

Informational Letter

IL 83-8**To: All Oil and Gas Operators****25 August 1983****INCENTIVE EXPLORATORY WELLS:
PRELIMINARY APPRAISALS BEFORE LICENSING**

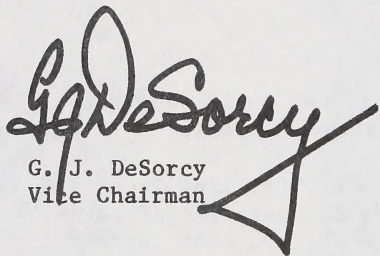
This letter supersedes Informational Letter IL 81-26, issued on 28 August 1981 and relating to the Exploratory Drilling Incentive Regulation, 1981.

As all preliminary appraisals now relate to the Exploratory Drilling Incentive Regulation, 1983, the service is described below in the context of that regulation. No procedural change has been adopted, but the fee has been increased from \$35 to \$40 to offset the increased cost of providing this service. Payment is required in advance by cash or cheque payable to the Energy Resources Conservation Board.

- An operator may, in writing, ask whether or not either a hydrocarbon occurrence penetrated between specified depths in a named nonconfidential well, or a crude bitumen occurrence at a particular location, is deemed by the Board to constitute a "significant occurrence of crude oil or gas" or an "oil sands deposit" within the meaning of section 9(b) and (c) and Schedules N and O of the Exploratory Drilling Incentive Regulation, 1983. A fee of \$40 will be charged for each hydrocarbon or crude bitumen occurrence appraised.
- An operator may also ask, in writing, whether or not a specific well is inside or outside the "4.8 kilometre area" or "2.4 kilometre area" associated with the anticipated incentive exploratory well. Such an inquiry should specify the legal descriptions and the known and expected bottom hole co-ordinates of both the existing well and the anticipated incentive exploratory well. A fee of \$40 will be charged for performing each distance determination associated with this type of an inquiry.

All operators are reminded that the Board is not obligated to honour a preliminary appraisal for an anticipated incentive exploratory well when it officially determines or redetermines the qualifying interval pursuant to section 6(1)(a) or section 7(3), respectively, of the regulation. The preliminary appraisal may be deemed invalid where circumstances change before the official determination is made, where additional information is obtained, or where an error in the appraisal is later detected.

Please direct each written request for a preliminary appraisal to the Board's Geology Department and, if you have a question regarding the service, you may phone that department's Incentives Section at 297-8227 or 297-8398.



G. J. DeSorcy
Vice Chairman

Energy Resources
Conservation Board640 Fifth Avenue SW
Calgary, Alberta
Canada T2P 3G4

Informational Letter

IL 83-9**To: All Oil and Gas Operators****25 August 1983****INCENTIVE EXPLORATORY WELLS DRILLED UNDER THE
EXPLORATORY DRILLING INCENTIVE REGULATION, 1981, AND
EXPLORATORY DRILLING INCENTIVE REGULATION, 1983**

This letter supersedes Informational Letter IL 81-27 issued on 2 September 1981.

Informational Letter IL 81-27 described the procedures employed by the Board when certifying and processing an incentive exploratory well under the 1978 and 1981 versions of the Exploratory Drilling Incentive Regulation. In this informational letter, these same procedures are simply re-worded, as necessary, to conform with the 1981 and 1983 regulations. The references to the 1981 regulation will continue to apply for several months, until all wells drilled under that regulation have been processed.

To obtain a full description of all Board-administered aspects of the Exploratory Drilling Incentive System, this letter should be reviewed in concert with the 1981 and 1983 regulations, copies of which are available from the Department of Energy and Natural Resources, Room 807, J. J. Bowlen Building, Calgary, and the companion informational letter entitled, "Incentive Exploratory Wells: Preliminary Appraisals before Licensing".

1 DEFINITIONS

In this informational letter,

(a) "abandoned well" means

- (i) a well that was drilled and forthwith abandoned and that, in the opinion of the Board, does not warrant being cased for production, or
- (ii) a well that once produced crude oil or gas but was abandoned before 1 January 1974;

(b) "completed well" means

- (i) a well that has been or is cased or completed for production except where such a well had been produced and abandoned before 1 January 1974, or
- (ii) a well that, in the opinion of the Board, penetrated a zone that warrants being cased for production, or
- (iii) an evaluation well that, in the opinion of the Board, penetrated a zone that would have warranted being cased for production if the well had been drilled as a conventional well;

(c) "incentive exploratory well" means a well certified by the Board as an incentive exploratory well under either the 1981 or 1983 regulation;

(d) "pre-existing well", in relation to an incentive exploratory well, means

- (i) a well drilled under a certificate issued before the date and time of the issuance of the certificate that pertains to the drilling of the incentive exploratory well, or
- (ii) an uncertified well that was spudded before the date and time of the issuance of the certificate that pertains to the drilling of the incentive exploratory well;

(e) "Class A interval" and "Class B interval" mean the respective intervals of depth of an incentive exploratory well that qualify for credit considerations under Schedules J and K of the 1981 regulation, and for credit or money equivalent considerations under Schedules N and O of the 1983 regulation, depending on which regulation is applicable;

(f) "qualifying interval" means the total Class A interval and/or Class B interval determined by the Board at an incentive exploratory well;

(g) "significant occurrence of crude oil or gas" means

- (i) the deepest hydrocarbon occurrence penetrated by a "completed well" as defined under clause (b), subclause (i), above, or
- (ii) the deepest hydrocarbon occurrence penetrated by a well that had been produced and abandoned before 1 January 1974, but not including the crude oil or gas accumulation which yielded this production, or
- (iii) the hydrocarbon occurrence represented by the zone referred to in clause (b), subclauses (ii), and (iii), above;

- (h) "4.8-kilometre area" means the area of a circle, having a radius of 4.8 kilometres, that is centred at the bottom-hole location of the incentive exploratory well; and
- (i) "2.4-kilometre area" means the area of a circle, having a radius of 2.4 kilometres, that is centred at the bottom-hole location of the incentive exploratory well.

2 CERTIFICATION OF AN INCENTIVE EXPLORATORY WELL

The Board will certify a well to be drilled for oil or gas that, at the time of licensing or certificate renewal, satisfies either condition (a), (b), or (c), below:

- (a) located more than 4.8 kilometres from any pre-existing well that penetrated a significant occurrence of crude oil or gas, and situated at a location where, in the opinion of the Board, no oil sands deposit exists, or
- (b) located less than 4.8 kilometres from a pre-existing well that penetrated a significant occurrence of crude oil or gas, but intended to be drilled at least 150 metres below the base of the deepest significant occurrence of crude oil or gas, or
- (c) situated at a location where, in the opinion of the Board, an oil sands deposit exists, but intended to be drilled to explore for crude oil or gas at any depth below the deepest member or formation containing the oil sands deposit.

3 DETERMINATION OF INTERVALS OF DEPTH QUALIFYING FOR CREDIT

For each incentive exploratory well, the total interval that qualifies for credit considerations will be determined and classified into Class A and/or Class B categories, in accordance with the following procedures. These procedures are illustrated in Figures 1 and 2.

3.1 Total Qualifying Interval

- (a) If no pre-existing well penetrated a significant occurrence of crude oil or gas in the 4.8-kilometre area, the qualifying interval will be the interval extending from the total depth of the incentive exploratory well up to either the depth of 600 metres or to ground level, depending on whether the 1981 or 1983 regulation applies.
- (b) If a pre-existing well penetrated a significant occurrence of crude oil or gas in the 4.8-kilometre area, the qualifying interval will be the interval extending from the total depth of the incentive exploratory well up to the deepest of:

- either 600 metres below the kelly bushing elevation of the incentive exploratory well or the ground level at the well, depending on whether the 1981 or 1983 regulation applies, or
- 150 metres below the depth that, in the opinion of the Board, corresponds to the depth to the base of the deepest significant occurrence of crude oil or gas penetrated by any pre-existing well in the 4.8-kilometre area, or
- the base of the member or formation deemed by the Board to contain the deepest oil sands deposit underlying the location at which the incentive exploratory well is drilled.

3.2 Class A and Class B Intervals

- (a) The Class A interval, if any, determined for an incentive exploratory well is that part of the total qualifying interval that is deeper than the total depth of the deepest pre-existing well in the 2.4-kilometre area.
- (b) The Class B interval, if any, determined for an incentive exploratory well is that part of the total qualifying interval that is duplicated by a pre-existing well in the 2.4-kilometre area.

3.3 Miscellaneous Considerations

- (a) When determining the distance between an incentive exploratory well and a pre-existing well, the Board bases its determination on the two wells' bottom-hole locations, rather than their surface locations, and it may require a directional survey to establish one or both of the bottom-hole locations.
- (b) When determining the qualifying interval, if any, and the Class A or Class B components thereof, the Board will normally recognize the measured depth at both the incentive exploratory well and each influencing well. But where a well deviates significantly from the vertical, its true vertical depth may be considered.
- (c) Any reasonably thick occurrence of carbonate rock containing medium or high grades of crude bitumen will be deemed to constitute an "oil sands deposit" within the meaning of this letter and Schedules J and K of the 1981 regulation, Schedules N and O of the 1983 regulation, and section 9 of both regulations.
- (d) Where a whipstocked hole is drilled, and where parts of the whipstocked and original holes occupy a common passage in the well, only one of the holes over the common passage is eligible for Class A or B status.

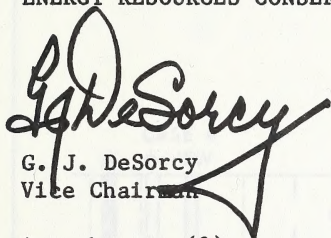
4 DRILLING AREAS

The Foothills, Plains, Northern, and Central Areas, as defined under Schedule L of the 1981 regulation and Schedule P of the 1983 regulation, are outlined on Figure 3.

In the event that a discrepancy exists between Figure 3 and Schedule L or P, the latter governs.

Any questions regarding this matter may be directed to the Incentives Section in the Board's Geology Department, at 297-8227 or 297-8398.

ENERGY RESOURCES CONSERVATION BOARD


G. J. DeSorcy
Vice Chairman

Attachments (3)

FIGURE 3. DETERMINATION OF CLASS A AND CLASS B DRILLING AREAS UNDER THE 1981 REGULATION

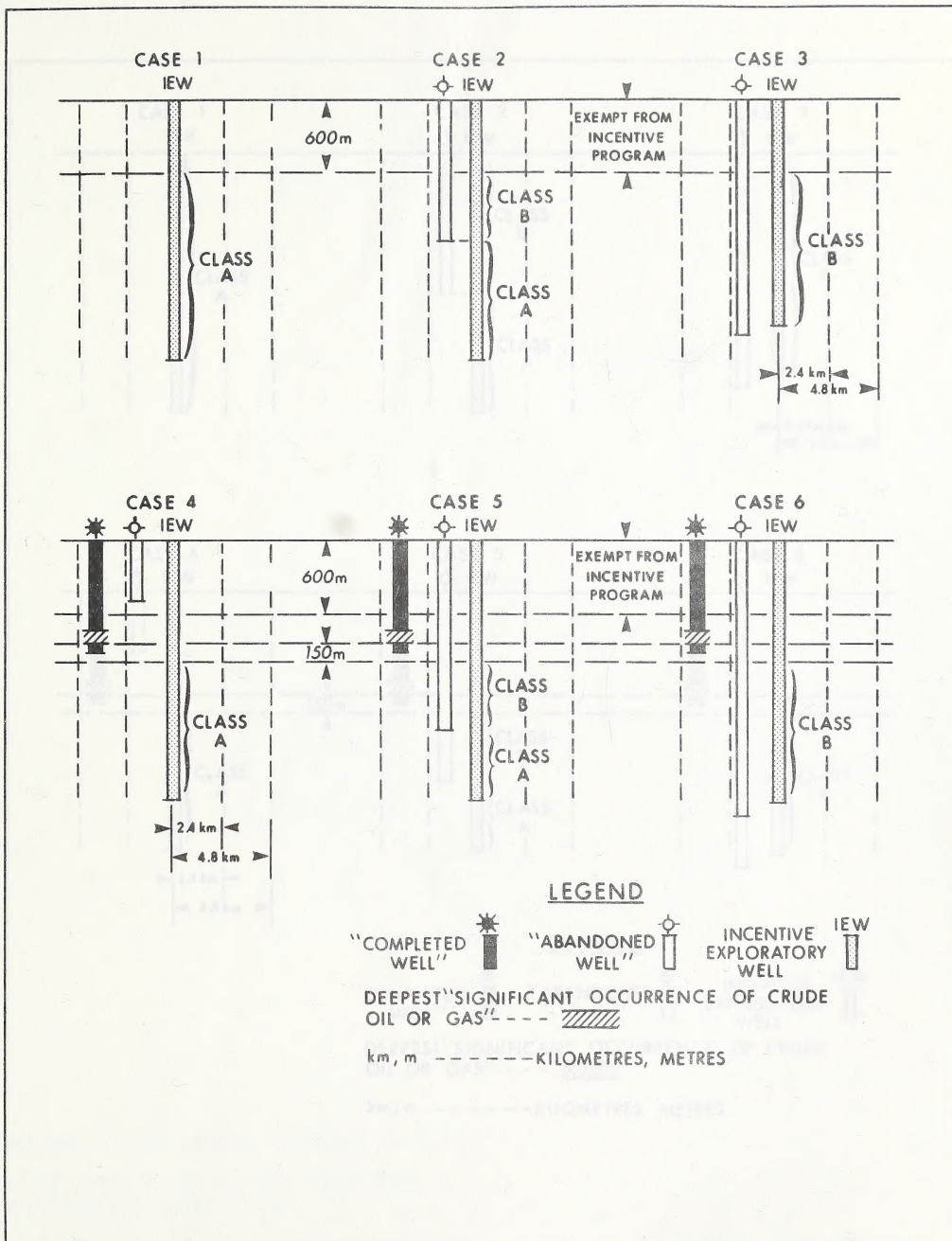


FIGURE 1 DETERMINATION OF CLASS A AND CLASS B INTERVALS UNDER THE 1981 REGULATION

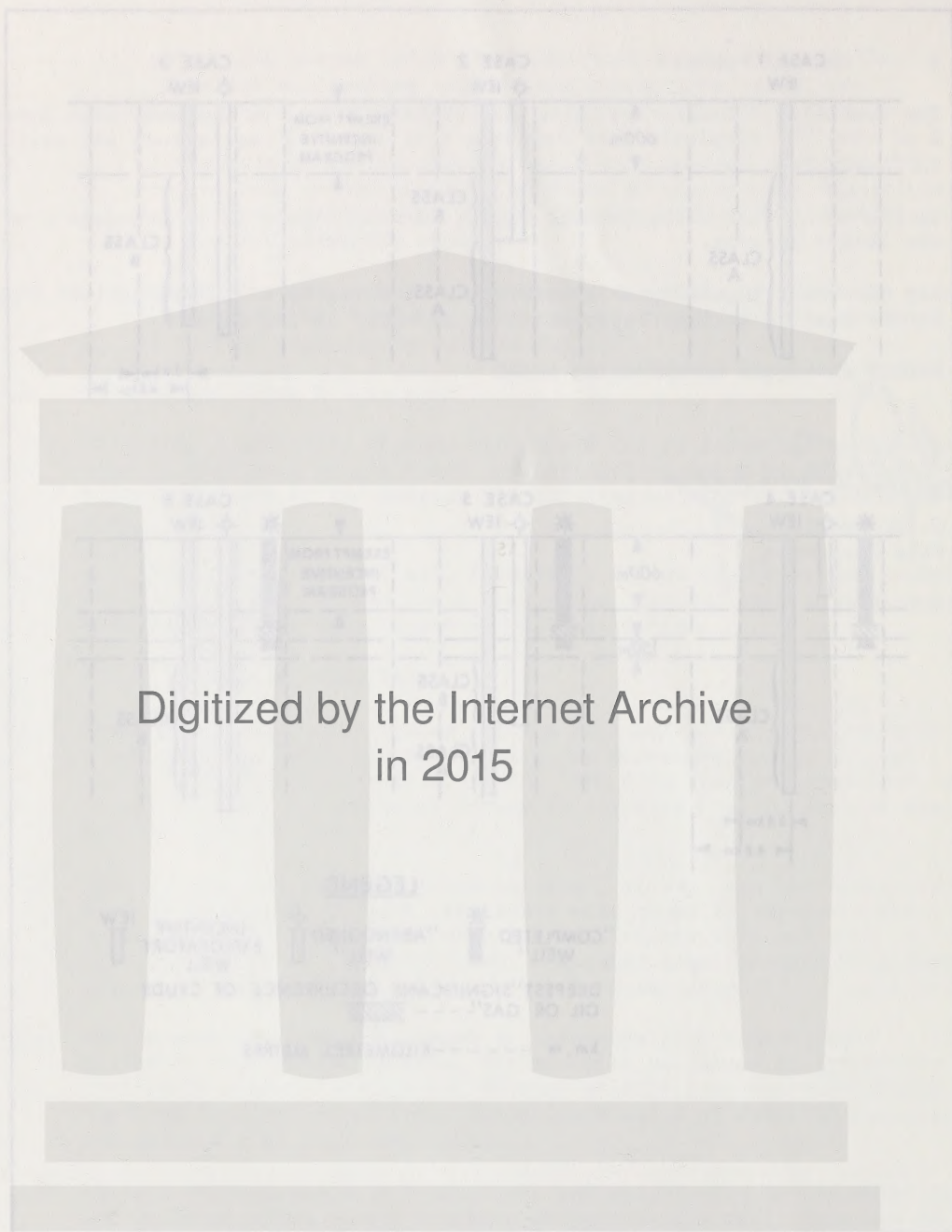


FIGURE 1 DETERMINATION OF CLASS A AND CLASS B INTERVALS UNDER THE 1981 REGULATION

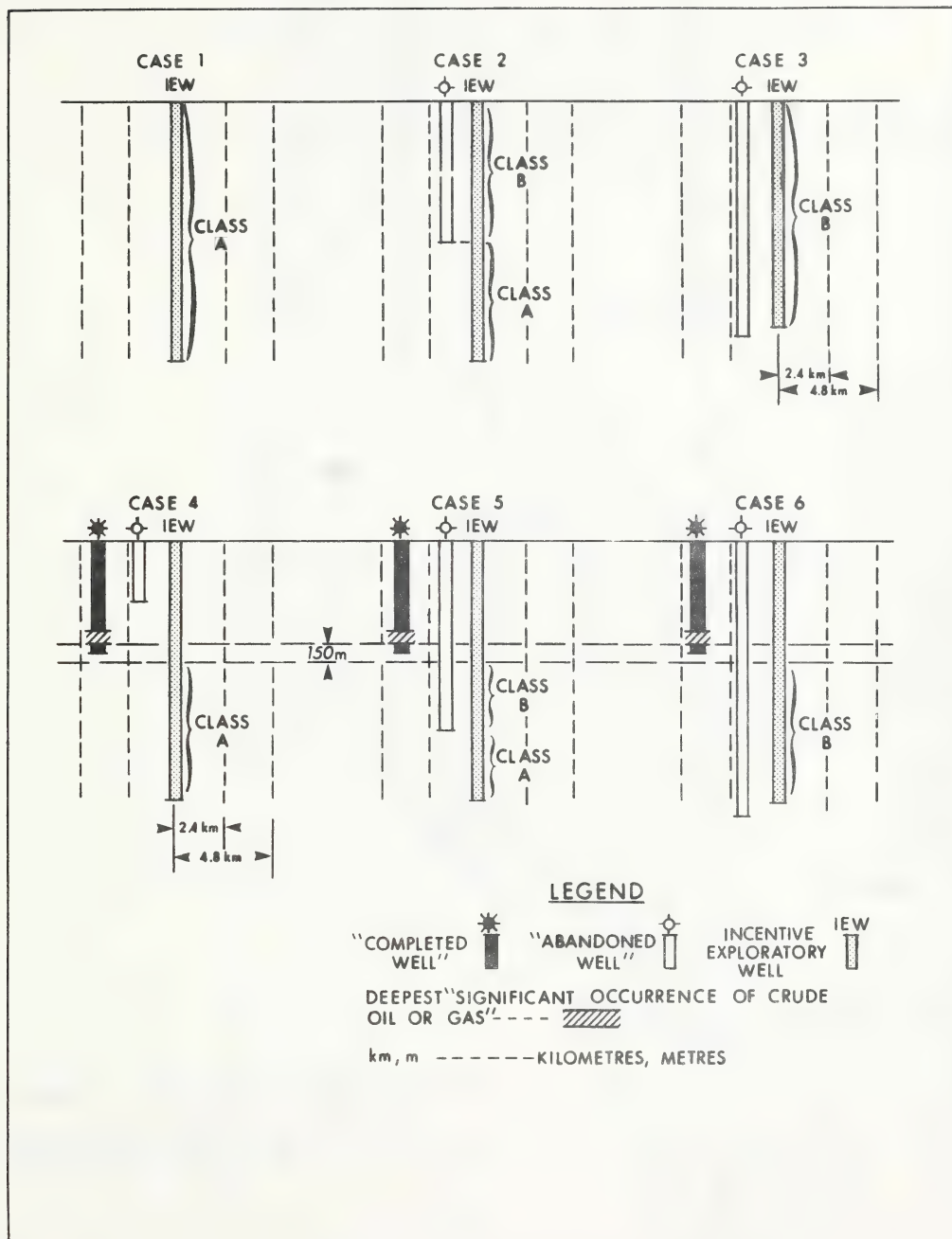


FIGURE 2 DETERMINATION OF CLASS A AND CLASS B INTERVALS UNDER THE 1983 REGULATION

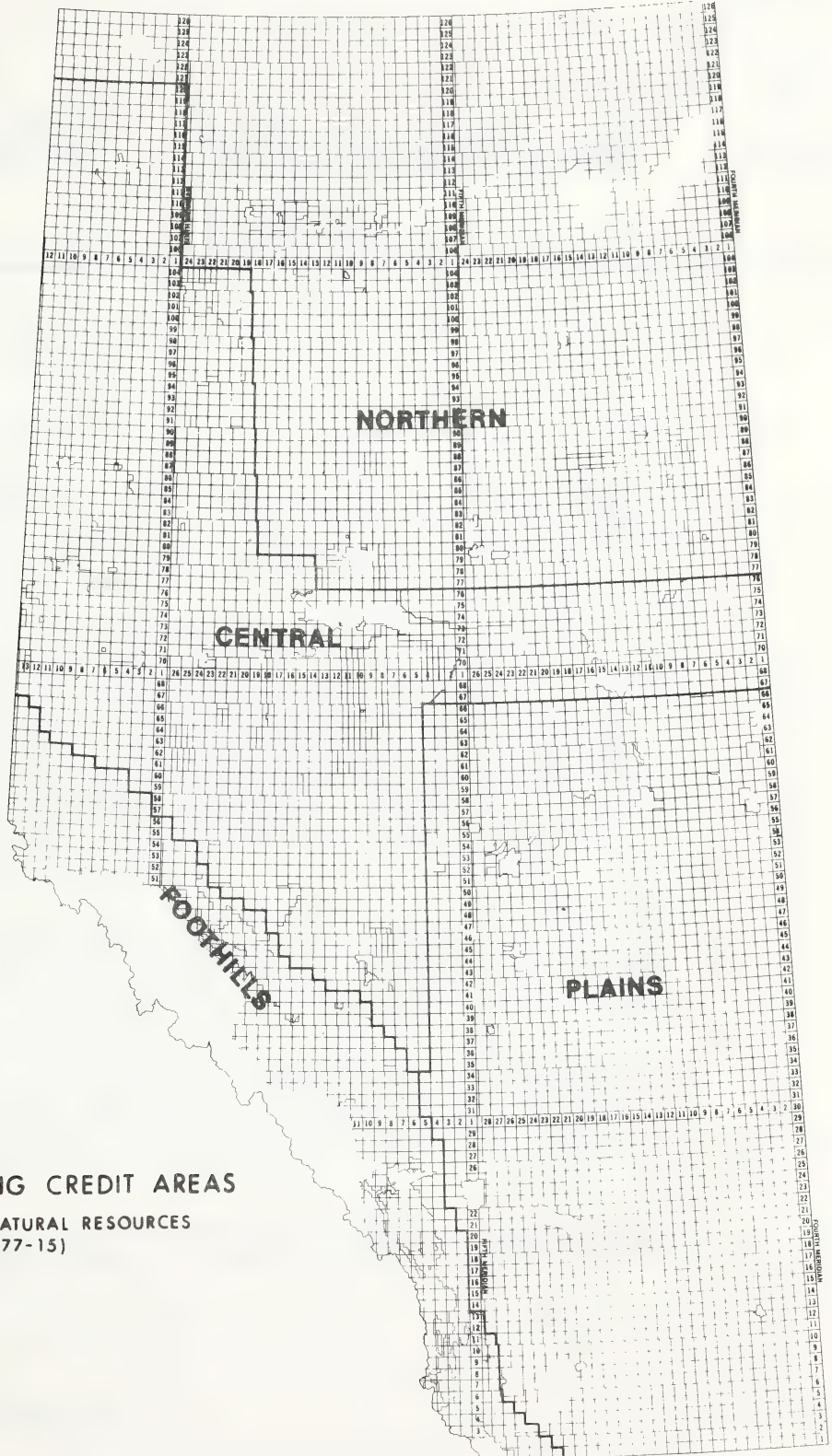


FIGURE 3 DRILLING CREDIT AREAS
 (AFTER ENERGY AND NATURAL RESOURCES
 INFORMATION LETTER 77-15)

Informational Letter

IL 83-10

TO: All Oil, Gas, and Pipeline Operators

27 October 1983

DISPOSAL OF OIL FIELD WASTE

The Board has amended sections 7.001, 7.002, 7.003, 8.050, 8.051, 8.150, and 8.160, and has added sections 12.111 and 15.212 to the Oil and Gas Conservation Regulations. The revisions were made to ensure the proper handling and disposal of oil and gas field wastes.

Oil, Gas, and Pipeline operators are responsible under sections 8.150 and 8.160 of the Oil and Gas Conservation Regulations for the containment and disposal of all waste in a manner acceptable to the Board. Oil and gas field waste which cannot be properly processed and disposed of within existing production facilities must be disposed of to an approved Waste Processing and Disposal Facility. For waste materials, such as solid wastes or produced sand, which cannot be handled by these facilities the method of disposal must be approved by the Board. Disposal of waste material to a site or facility not so approved may be considered in contravention of the Oil and Gas Conservation Regulations.

The Board is accepting and processing applications for approval of all existing and new Waste Processing and Disposal Facilities which meet the minimum requirements attached hereto. Operators of all existing facilities which do not presently meet these guidelines will be given until 1 July 1984 to upgrade and receive approval.

Operators of Waste Processing and Disposal Facilities will be required to submit accounting forms to the Board's Development Department, Calgary, of the fluid handled at the facility and will be responsible for any waste emanating from the facility, and for the quality of the saleable product.

Requests for further information regarding this matter may be directed to the Production Section, Development Department, telephone 297-8326, telex: 03-821717.


V. E. Bohme
Board Member

APPROVAL GUIDELINES
OIL FIELD WASTE PROCESSING AND DISPOSAL FACILITIES

A Waste Processing and Disposal Facility means a system or arrangement of tanks or other surface equipment receiving waste material (exceptions are hazardous materials which are specified by regulations or directives from Alberta Environment) for processing and disposition from any gas or oil field operations under the jurisdiction of the Board.

The Board's general guidelines for these facilities are as follows:

1. Location must have little or no environmental impact with respect to noise, odour, and aesthetics.
2. An Alberta Environment Clean Air Licence is required if an incinerator is used in conjunction with the facility. Depending on the volumes of fluid and the type of operation, a Clean Water Licence may be required.
3. An approved waste processing and disposal facility should contain the following key elements:
 - appropriate vessel(s) for waste receipts,
 - treating, separating, and recycling equipment,
 - centrifuge-type separator, or equivalent,
 - adequate heat source,
 - adequate storage,
 - an approved subsurface waste water disposal facility,
 - satisfactory containment and disposal of surface water run-off,
 - appropriate diking,
 - a cement or other approved impervious pit for containing spill debris, if this service is provided.
4. The method of disposal of solid waste and sludge material must be approved by the Board.
5. Monthly records of oil and water receipts and dispositions must be completed and submitted to the Development Department, Calgary.
6. General:
 - good housekeeping practices are to be followed,
 - spacing of equipment must conform with present Board regulations.

Informational Letter

IL 83-11

To: All Major Gas Purchasers and
All Oil and Gas Operators

2 December 1983

COMMON GAS PURCHASER AND RELATED MATTERS
OIL AND GAS CONSERVATION ACT:
REGULATION CHANGES AND CLARIFICATION OF BOARD POLICY

This informational letter together with Guide G-32 supersedes
Informational Letter IL 79-13.

To aid industry in preparing common-purchaser and related applications under Part 10 of the Oil and Gas Conservation Act¹ (the Act) and to streamline the processing of such applications, the Energy Resources Conservation Board has amended the Oil and Gas Conservation Regulations as outlined here. In addition, the Board has briefly set out its policy on certain aspects of the common purchase of gas under section 40² of the Act where problems or confusion may exist. This policy is discussed in more detail in a new guide, G-32³, entitled "Common Gas Purchaser and Related Matters: Board Policy and Views".

This action stems from the Board's recently completed review of the declaratory provisions of Part 10 and the rateable-take provisions, section 23⁴, of the Act. The review was undertaken some time ago to speed up the application process and solve related administrative problems. The Board also solicited views from industry regarding problems and solutions. Guide G-32 reports on the Board's review.

1 Chapter 0-5, Revised Statutes of Alberta, 1980.

2 Previously section 52 of The Oil and Gas Conservation Act.

3 Regulation amendments and guide are available from the Board's Records Centre, Calgary.

4 Previously section 35 of The Oil and Gas Conservation Act.

1 REGULATION CHANGES

1.1 Part 10 Applications

Sections 15.010 and 15.020 of the regulations have been amended and sections 15.022, 15.024, and 15.026 added. The amendments describe in more detail the information to be included in common-carrier and common-purchaser applications respectively, while the new section 15.024 describes similar information for common-processor applications. Section 15.022 lists the information to be included in an application, under section 40(4) of the Act, requesting the Board to set proportions in order to assist in giving effect to a common-purchaser declaration. Section 15.026 lists the information required in an application under section 45 of the Act, to have the Board condition a declaration, issued under Part 10 of the Act, to be effective on a date before that of the declaration but on or after that on which the Board received the application.

1.2 Multiple Gas Production-Spacing-Unit and Rateable-Take Applications

Section 5.020 has been amended and sections 5.021 and 5.022 added to include the principles the Board will use in evaluating applications for multiple gas production spacing units (PSUs) (see page 3). The new section 15.005 lists information to include in a rateable-take application.

2 CLARIFICATION OF BOARD POLICY

The Board noted that a number of items raised by industry have been addressed in past Board decisions. The Board believes it appropriate to summarize here very briefly its policy respecting these matters and to discuss this policy in more detail together with its views on these matters in Guide G-32. In addition, the views expressed in IL 79-13 have been updated where necessary and incorporated into the guide.

2.1 Apportioning Under a Common-Purchaser Order

The Board believes that the onus in setting proportions should remain with the industry and not with the Board. It also believes that apportioning should normally be based on reserves and hence, for reasons explained in Guide G-32, has adopted a formula-type approach. The formula commonly used by the Board for calculating the proportions is:

$$\text{Proportion attributed to validated area} = \frac{\text{Pore volume of validated area}}{\text{Sum of pore volumes of all validated areas}}$$

The pore volume of each validated area would be determined from the parameters of its associated well. However, in most cases the proportions reduce to a ratio of the wellbore net pays of eligible wells. An eligible well is defined in most cases as one capable of production and tied into a gathering system. Where multiple gas PSUs (involving two or more drilling spacing units (DSUs)) are involved, the area would become a factor and the wellbore thickness might be varied from that of the associated well if appropriate.

2.2 Gas PSU Administration

The principles the Board will use for approving multiple gas PSUs, so that undrilled DSUs may be included when determining proportions, are as follows:

1. A multiple gas PSU shall contain only whole laterally adjoining DSUs that are pooled or are of common ownership, and must contain a well capable of production.
2. (a) The area of a multiple PSU for a gas well shall not exceed four sections.
- (b) A multiple PSU for a gas well may not contain more than two sections in any direction.
3. A DSU shall not be included in the multiple PSU of a gas well unless it contains a well capable of production, or unless geological and other evidence from drilled wells adequately shows reservoir continuity such that, in the Board's opinion,
 - (i) a well capable of production could be completed on target within the DSU, and
 - (ii) the gas within the DSU is practicably recoverable by the producing well of the multiple PSU.
4. Any increase in a well's production rate due to the formation of a multiple PSU must not, in the Board's opinion, seriously affect the drainage patterns and hence equity within the pool, reduce the ultimate recovery of gas by inducing watering-out of the well, or cause other serious adverse effects in the reservoir.

2.3 Discrimination

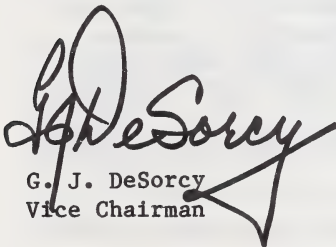
In the Board's view, a failure on the part of a common purchaser, when so declared, to apportion the gas he will purchase among each qualified producer or owner of gas in the pool, and to accept the gas when offered for sale to him, would constitute discrimination within the terms of the Act. A qualified producer or owner of gas would be one who has completed a well in the pool capable of production at an economic rate and which, in most cases, is tied into a gathering system.

2.4 Cross-Dedication

In the Board's opinion, sections 40(5) and 9(1) of the Act offer sufficient protection to allay the concerns of any common purchaser who has a cross-dedication (multi-pool) type of contract for a particular area. While section 40(5) does refer only to the pool subject to the common-purchaser declaration, the Board believes that the intent of this section is that a common purchaser should not have to purchase additional gas as a result of the Board's issuing a common-purchaser declaration. However, interpretation of the statute is a question of law and rests with the Courts.

3 INQUIRIES

If you have any questions respecting the matters discussed in this bulletin, please contact the Assistant Manager of the Board's Gas Department at 297-8504, telex 03-821717.



G. J. DeSorcy
Vice Chairman

